bs-0026R **[Primary Antibody]**

Osteopontin Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 6696 **SWISS:** P10451

Target: Osteopontin

Immunogen: KLH conjugated synthetic peptide derived from human OPN: 221-280/294.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Osteopontin is the principal phosphorylated glycoprotein of bone and is expressed in a limited number of other tissues including dentine. Osteopontin is produced by osteoblasts under stimulation by calcitriol and binds tightly to hydroxyapatite. It is also involved in the anchoring of osteoclasts to the mineral of bone matrix via the vitronectin receptor, which has specificity for osteopontin. Osteopontin is overexpressed in a variety of cancers, including lung, breast, colorectal, stomach, ovarian, melanoma and mesothelioma.

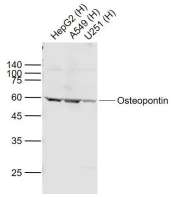
Applications: **WB** (1:500-2000)
IHC-P (1:500-2000)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)

Reactivity: Human, Rat

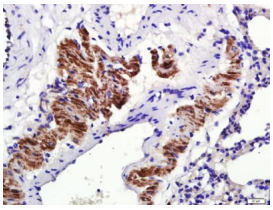
Predicted MW.: 34 kDa

Subcellular Location: Secreted

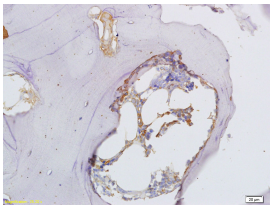
VALIDATION IMAGES



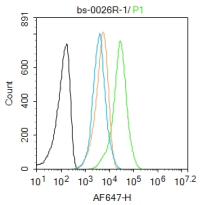
Sample: Lane 1: HepG2 (Human) Cell Lysate at 30 ug Lane 2: A549 (Human) Cell Lysate at 30 ug Lane 3: U251 (Human) Cell Lysate at 30 ug Primary: Anti-Osteopontin (bs-0026R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 34 kD Observed band size: 60 kD



Paraformaldehyde-fixed, paraffin embedded (Rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Osteopontin) Polyclonal Antibody, Unconjugated (bs-0026R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Tissue/cell: rat shin bone; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-osteopontin Polyclonal Antibody, Unconjugated(bs-0026R) 1:300, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: HepG2. Primary Antibody (green line): Rabbit Anti-Osteopontin antibody (bs-0026R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=15.1]** Fancheng Xu. et al. A sequential sustained-release hydrogel with potent antimicrobial, anti-inflammatory, and osteogenesis-promoting properties for the treatment of periodontitis. CHEM ENG J. 2023 Dec;477:147195 WB ;Mouse. 10.1016/j.cej.2023.147195
- **[IF=15.304]** Xuan Li. et al. ROS-responsive hydrogel coating modified titanium promotes vascularization and osteointegration of bone defects by orchestrating immunomodulation. BIOMATERIALS. 2022 Aug;287:121683 IHC ;Rat. 35870263
- **[IF=14.3]** Yong Ao. et al. Hypoxia-Mimicking Mediated Macrophage-Elimination of Erythrocytes Promotes Bone Regeneration via Regulating Integrin αvβ3/Fe2+-Glycolysis-Inflammation. ADV SCI. 2024 Oct;:2403921 IHC ;Rat. 39352318
- **[IF=13.6]** Juan Yan. et al. Engineered exosomes reprogram Gli1+ cells in vivo to prevent calcification of vascular grafts and autologous pathological vessels. SCI ADV. 2023 Jul;9(29) IF,ICC ;Human,Rat. 37478186
- **[IF=13.9]** Jieyun Xu. et al. Nature Knows Best: Extracellular Matrix-Gelatin Hydrogel Masking Bioauthentic Bone Scaffold Locking Blood Clot to Induce M2 Macrophage-Mediated Bone Regeneration via Activating an Endocytosis-Macroautophagy-Inflammation Axis. SMALL STRUCT. 2024 Nov;:2400499 IHC ;Rat. 10.1002/sstr.202400499